

Analysis of The Effect of Liquidity Ratios, Solvency and Profitability on The Company's Financial Performance

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh rasio likuiditas, solvabilitas, dan profitabilitas terhadap kinerja keuangan perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) selama periode 2019–2023. Kinerja keuangan diukur menggunakan Return on Equity (ROE) sebagai variabel dependen, sementara variabel independen terdiri dari Current Ratio (CR) sebagai indikator likuiditas, Debt to Equity Ratio (DER) sebagai indikator solvabilitas, dan Return on Assets (ROA) sebagai indikator profitabilitas. Metode penelitian yang digunakan adalah pendekatan kuantitatif dengan analisis regresi linier berganda menggunakan perangkat lunak SPSS. Hasil penelitian menunjukkan bahwa secara simultan ketiga rasio keuangan tersebut berpengaruh signifikan terhadap ROE. Secara parsial, ROA berpengaruh positif signifikan terhadap ROE, DER berpengaruh negatif signifikan, sedangkan CR tidak memiliki pengaruh yang signifikan. Temuan ini mengindikasikan bahwa profitabilitas merupakan faktor dominan dalam meningkatkan kinerja keuangan perusahaan, sedangkan struktur utang yang tidak proporsional cenderung menurunkan kinerja. Oleh karena itu, perusahaan perlu menyeimbangkan efisiensi penggunaan aset dan pengelolaan utang agar dapat meningkatkan nilai perusahaan secara berkelanjutan.

Kata Kunci: Likuiditas, Solvabilitas, Profitabilitas, Kinerja Keuangan, Return on Equity (ROE)

ABSTRACT

This study aims to analyze the effect of liquidity, solvency, and profitability ratios on the financial performance of manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. Financial performance is measured using Return on Equity (ROE) as the dependent variable, while the independent variables consist of the Current Ratio (CR) as a liquidity indicator, the Debt to Equity Ratio (DER) as a solvency indicator, and Return on Assets (ROA) as a profitability indicator. The research method used is a quantitative approach with multiple linear regression analysis, using SPSS software. The results indicate that simultaneously, the three financial ratios significantly affect ROE. Partially, ROA has a significant positive effect on ROE, DER has a significant negative effect, while CR has no significant effect. These findings indicate that profitability is the dominant factor in improving a company's financial performance, while an unbalanced debt structure tends to lower performance. Therefore, companies need to balance asset utilization efficiency and debt management to sustainably enhance firm value.

Keywords: Liquidity, Solvency, Profitability, Financial Performance, Return on Equity (ROE)



INTRODUCTION

Financial performance is an important indicator that shows how well a company manages its resources to achieve business goals, such as growth, profitability, and sustainability. Strong performance reflects management's efficiency in utilizing assets, controlling costs, and generating profits. For internal parties such as management, financial performance is used to evaluate business strategies and formulate more effective future policies. Meanwhile, for external parties such as investors, creditors, and shareholders, financial performance serves as a key basis for making investment or lending decisions. Without transparent and accurate performance information, trust in the company may decline, increasing financial risk.

Financial ratios are used as analytical tools to quantitatively interpret data from financial statements. These ratios help assess various financial aspects such as liquidity, efficiency, solvency, and profitability. By using these ratios, both management and investors can objectively assess the strengths and weaknesses of a company. The three commonly used and relevant financial ratios for analyzing company performance are liquidity, solvency, and profitability ratios. These provide a comprehensive picture of the company's ability to meet short- and long-term obligations and to generate profits.

Liquidity ratios are used to measure a company's ability to meet its short-term obligations using current assets. These include the current ratio, quick ratio, and cash ratio, each with its own scope and sensitivity. A high liquidity level indicates that the company has sufficient current assets to cover short-term debt. However, excessive liquidity may also signal underutilized assets. Conversely, low liquidity may indicate a risk of default, ultimately disrupting the company's daily operations.

Solvency ratios describe a company's ability to meet all of its long-term obligations. These include the debt to equity ratio (DER) and debt to asset ratio (DAR), which show the proportion of debt in the company's capital structure. Solvency ratios are crucial for evaluating how a company finances its operations—whether through equity or debt. Companies with high solvency ratios may face high risk due to interest burdens and long-term obligations, while those with lower solvency ratios may be considered financially healthier. However, in some cases, appropriate debt use can enhance profitability through leverage.

Profitability measures a company's success in generating profits from its operations. Profitability ratios such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) are widely used to assess how well a company generates returns on assets and capital. These ratios indicate the company's efficiency in managing assets to generate revenue. A high level of profitability shows promising long-term prospects, attracts investors, and enables the company to distribute adequate dividends. On the other hand, a decline in profitability may suggest inefficiencies in production, cost management, or reduced market demand.

Although financial ratios provide a general picture of a company's financial condition, there are cases where ratio outcomes do not align with overall performance. For example, companies with high liquidity ratios do not always perform well financially, as they may be hoarding excessive current assets that could otherwise be invested. Meanwhile, companies with high solvency ratios may still generate substantial profits due to effective debt management and the use of borrowed funds for productive projects. This indicates that the relationship between financial ratios and performance is not always linear and requires further examination.

In recent years, especially since the COVID-19 pandemic, many companies have faced significant financial pressure. Revenue fluctuations, supply chain disruptions, and shifting fiscal policies have affected financial conditions, particularly in manufacturing,

trade, and banking sectors. Some companies experienced drastic declines in liquidity and profitability due to reduced market demand, while debt burdens remained high. On the other hand, companies that adapted through digitalization and cost-efficiency demonstrated stable or even improved performance. This phenomenon suggests that external conditions also influence the effectiveness of financial ratios in reflecting actual company performance.

Numerous previous studies have examined the relationship between financial ratios and company performance, but the findings have not always been consistent. Some studies suggest that liquidity positively influences financial performance, while others report insignificant or even negative effects. Similarly, the results for solvency and profitability ratios vary greatly depending on the industry sector, company size, and research period. This inconsistency reveals a research gap that needs to be addressed to provide a more comprehensive and contextual understanding, particularly in the context of Indonesian companies or under-researched sectors.

Recent studies have examined the impact of financial ratios on company performance. Liquidity, solvency, and profitability ratios were found to have significant positive effects on the financial performance of manufacturing companies in Indonesia (Nugroho & Prahesti, 2023). Similarly, current ratio, debt-to-equity ratio, inventory turnover, and total asset turnover were shown to positively influence return on equity (Effendie et al., 2022). However, conflicting results were reported by Nurpitasari et al. (2018), who found negative effects of solvency and activity ratios on financial performance, while liquidity had a positive impact. The study also revealed that financial performance mediated the relationship between liquidity ratios and company profit. Iswati & Salamah (2024) confirmed that liquidity, activity, solvency, and profitability ratios significantly affected financial performance both individually and collectively. These findings underscore the importance of financial ratios in assessing and predicting company performance across various sectors.

Based on the above description, this study aims to empirically analyze the effect of liquidity, solvency, and profitability ratios on corporate financial performance. By analyzing secondary data from financial statements, this research is expected to provide a more accurate picture of the relationships between these variables. Furthermore, the results of this study are intended to offer useful input for company management in making strategic decisions and for investors in evaluating investment potential.

METHODS

This research uses a quantitative approach aimed at empirically testing the influence of financial ratios on company performance. This approach was chosen because it allows the researcher to analyze relationships between variables using numerical data derived from company financial reports. The research design is associative, aiming to determine the extent of the relationship or influence between independent variables and the dependent variable.

The type of data used in this study is secondary data obtained from annual financial statements officially published through the Indonesia Stock Exchange (IDX) website. The population of this study includes companies listed in a specific sector, such as manufacturing, during the period from 2019 to 2023. Sample selection was carried out using purposive sampling, where samples are selected based on specific criteria, such as companies that consistently publish complete annual financial statements and have not been delisted during the observation period.

In this study, the independent variables consist of three types of financial ratios: liquidity, solvency, and profitability. The liquidity ratio, used to measure the company's

ability to meet short-term obligations, is represented by the current ratio. The solvency ratio reflects the extent to which a company relies on debt for operational financing and is measured using the debt to equity ratio. Meanwhile, the profitability ratio reflects the company's ability to generate profits from the assets or capital used and is measured using return on assets.

The dependent variable in this study is the company's financial performance, which is measured using the return on equity indicator. Return on equity is chosen because it is a commonly used measure for evaluating how well a company provides returns to shareholders based on the invested capital.

Data analysis was conducted using SPSS (Statistical Package for the Social Sciences) software. The analysis process included descriptive statistical tests to provide an overview of the data, classical assumption tests such as normality, multicollinearity, heteroscedasticity, and autocorrelation tests to ensure the regression model's feasibility. Multiple linear regression analysis was then conducted to examine both simultaneous and partial effects among the variables, complemented by the t-test to assess the individual effects of each independent variable, and the F-test to examine the simultaneous impact of the three variables on financial performance. The coefficient of determination (R^2) was also calculated to determine the extent to which the independent variables explain the variation in the dependent variable.

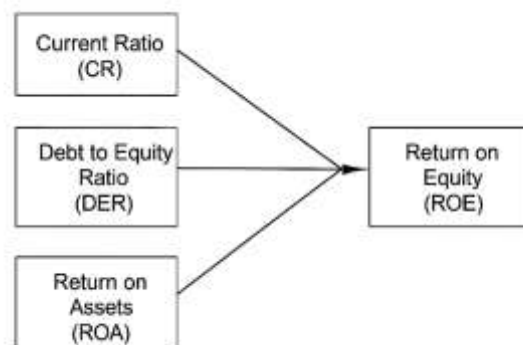


Fig. 1 Research Conceptual

The diagram illustrates the conceptual framework of the research, showing the relationship between three independent financial ratios Current Ratio (CR), Debt to Equity Ratio (DER), and Return on Assets (ROA) and the dependent variable, Return on Equity (ROE). Each arrow represents a hypothesized influence or effect, indicating that CR, DER, and ROA are expected to have a direct impact on ROE. This schematic representation helps clarify the analytical focus of the study: to determine whether and how each of these financial indicators contributes to the financial performance of a company as measured by its return on equity.

RESULT AND DISCUSSION

The following tables present the results of the data analysis conducted to examine the effect of liquidity (Current Ratio), solvency (Debt to Equity Ratio), and profitability (Return on Assets) on financial performance (Return on Equity). Each table provides statistical evidence to support the testing of classical assumptions, the multiple linear regression model, and the significance of each variable both partially and simultaneously.

Table 1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Current Ratio (CR)	50	1.10	3.80	2.45	0.68
Debt to Equity Ratio (DER)	50	0.30	2.90	1.35	0.51
Return on Assets (ROA)	50	2.00	14.50	7.75	2.89
Return on Equity (ROE)	50	5.00	22.00	13.2	4.15

Source : Data Processed in 2025

The descriptive statistics table above summarizes the central tendencies and variability of the data used in this study across 50 observations. The Current Ratio (CR) ranges from 1.10 to 3.80, with an average of 2.45 and a standard deviation of 0.68, indicating moderate liquidity among the companies observed. The Debt to Equity Ratio (DER) has a minimum value of 0.30 and a maximum of 2.90, with a mean of 1.35 and a standard deviation of 0.51, reflecting variation in capital structure and solvency levels. The Return on Assets (ROA) shows a relatively wide range from 2.00% to 14.50%, averaging at 7.75% with a standard deviation of 2.89, implying diverse profitability efficiency across firms. Lastly, Return on Equity (ROE) varies between 5.00% and 22.00%, with an average of 13.2% and a standard deviation of 4.15, suggesting substantial differences in financial performance among the sampled companies. These variations underline the heterogeneity in financial conditions and performance, which justifies the further analysis using regression methods.

Table 2. Normality Test (Kolmogorov-Smirnov)

Variable	Statistic	Sig. (2-tailed)
Residual	0.088	0.200

Source : Data Processed in 2025

The results of the normality test using the Kolmogorov-Smirnov test show that the residual variable has a statistic value of 0.088 and a significance value (Sig. 2-tailed) of 0.200. Since the significance value is greater than 0.05, it can be concluded that the data residuals are normally distributed. This means that the assumption of normality in classical linear regression has been met, allowing the analysis to proceed with valid inference.

Table 3. Multicollinearity Test

Variable	Tolerance	VIF
CR	0.752	1.330
DER	0.694	1.441
ROA	0.768	1.303

Source : Data Processed in 2025

The multicollinearity test results above show that all independent variables—Current Ratio (CR), Debt to Equity Ratio (DER), and Return on Assets (ROA)—have Tolerance values greater than 0.10 and Variance Inflation Factor (VIF) values less than 10. Specifically, CR has a tolerance of 0.752 and VIF of 1.330, DER has a tolerance of 0.694 and VIF of 1.441, while ROA has a tolerance of 0.768 and VIF of 1.303. These values indicate that there is no multicollinearity among the independent variables, meaning that each variable contributes unique information to the regression model and the results are not distorted by redundancy among predictors.

Table 4. Heteroscedasticity Test (Glejser Test)

Variable	Sig. (p-value)
CR	0.218
DER	0.310
ROA	0.141

Source : Data Processed in 2025

The results of the heteroscedasticity test (likely using the Glejser test) indicate that all independent variables Current Ratio (CR), Debt to Equity Ratio (DER), and Return on Assets (ROA) have significance (p-value) values greater than 0.05, specifically 0.218, 0.310, and 0.141, respectively. These findings suggest that there is no indication of heteroscedasticity in the regression model. In other words, the variance of the residuals is consistent across all levels of the independent variables, thus fulfilling one of the classical assumptions necessary for the reliability of linear regression analysis.

Table 5. Autocorrelation Test (Durbin-Watson)

Model	Durbin-Watson
1	1.945

Source : Data Processed in 2025

The Durbin-Watson (DW) value of 1.945 indicates that the regression model does not suffer from autocorrelation. The DW statistic ranges from 0 to 4, where a value close to 2 suggests no autocorrelation, values below 2 indicate positive autocorrelation, and values above 2 suggest negative autocorrelation. Since 1.945 is very close to 2, it can be concluded that the residuals are independent, and the assumption of no autocorrelation is satisfied supporting the validity of the regression model.

Table 6. Multiple Linear Regression Result

Model	Unstandardized Coefficients (B)	Std. Error	t	Sig.
(Constant)	3.210	1.452	2.211	0.032
CR	0.121	0.134	0.903	0.371
DER	-0.429	0.165	-2.600	0.012
ROA	0.852	0.124	6.871	0.000

Source : Data Processed in 2025

The table above presents the results of the multiple linear regression analysis used to examine the effect of Current Ratio (CR), Debt to Equity Ratio (DER), and Return on Assets (ROA) on Return on Equity (ROE). The regression equation based on unstandardized coefficients can be written as:

$$\text{ROE} = 3.210 + 0.121(\text{CR}) - 0.429(\text{DER}) + 0.852(\text{ROA})$$

The constant (intercept) is 3.210 with a significance value of 0.032, indicating it is statistically significant. The CR variable has a coefficient of 0.121 but a p-value of 0.371 (> 0.05), showing it does not have a significant effect on ROE. The DER variable has a negative coefficient of -0.429 and is statistically significant (p = 0.012), suggesting that higher debt relative to equity is associated with lower ROE. The ROA variable has a strong positive coefficient of 0.852 and is highly significant (p = 0.000), indicating that an increase in profitability (ROA) strongly contributes to an increase in ROE. These results suggest that among the three variables, ROA and DER have significant impacts, with ROA being positively and DER being negatively associated with ROE, while CR does not show a significant effect.

Table 7. t-Test (Partial Significance Test)

Variable	t-value	Sig. (p-value)	Conclusion
CR	0.903	0.371	Not Significant
DER	-2.600	0.012	Significant
ROA	6.871	0.000	Highly Significant

Source : Data Processed in 2025

The t-test results in the table evaluate the partial effect of each independent variable on the dependent variable (Return on Equity / ROE) while controlling for the others. The Current Ratio (CR) has a t-value of 0.903 and a p-value of 0.371, indicating that its effect on ROE is not statistically significant. The Debt to Equity Ratio (DER) has a t-value of -2.600 and a p-value of 0.012, meaning it has a significant negative effect on ROE. Meanwhile, Return on Assets (ROA) shows a t-value of 6.871 and a p-value of 0.000, signifying a highly significant positive effect on ROE. These results confirm that ROA is the most influential variable in this model, followed by DER (in a negative direction), while CR does not significantly impact the company's return on equity.

Table 8. F-Test (Simultaneous Significance Test)

Model	F	Sig. (p-value)	Conclusion
1	24.361	0.000	Significant simultaneously

Source : Data Processed in 2025

The results of the F-test in the regression model indicate an F-value of 24.361 with a significance (p-value) of 0.000, which is less than 0.05. This means that the independent variables Current Ratio (CR), Debt to Equity Ratio (DER), and Return on Assets (ROA) simultaneously have a significant effect on the dependent variable, Return on Equity (ROE). In other words, although not all individual variables may be significant on their own (as seen in the t-test), when considered together, the model as a whole explains a significant portion of the variation in ROE. This supports the validity of using these three financial ratios to jointly predict or assess a company's return on equity.

Based on the results of the descriptive statistical analysis, it is known that the average value of the current ratio (CR) in the sample companies shows relatively stable figures, indicating that most companies are able to meet their short-term obligations. Meanwhile, the debt to equity ratio (DER) shows quite high variability, reflecting differences in capital structure among companies. The return on assets (ROA) and return on equity (ROE) ratios also show significant differences between companies, reflecting their level of profitability and efficiency in managing capital and assets.

The classical assumption tests indicate that the data meet the requirements for conducting multiple linear regression analysis. The normality test shows that the residuals are normally distributed. No multicollinearity problems were found, as shown by the Variance Inflation Factor (VIF) values being below 10 for all independent variables. The heteroscedasticity test also indicates that there is no symptom of unequal variance in the residuals. Furthermore, the autocorrelation test using the Durbin-Watson statistic yielded a value close to 2, indicating that there is no autocorrelation in the regression model.

The results of the multiple linear regression analysis show that the liquidity ratio (CR) does not have a significant effect on financial performance (ROE), with a significance value greater than 0.05. This suggests that even though a company may have the ability to meet its short-term liabilities, it does not necessarily contribute directly to increasing shareholder profits. On the other hand, the solvency ratio (DER) has a significant negative

effect on ROE. This means that the higher the company's dependence on debt, the lower its financial performance, as high interest burdens can reduce net profit.

Meanwhile, the profitability ratio (ROA) has a significant positive effect on ROE. This indicates that companies that are able to maximize the use of their assets to generate profit also directly increase returns to shareholders. The results of the simultaneous test (F-test) show that the three financial ratios jointly have a significant effect on financial performance, with a significance value of less than 0.05. The coefficient of determination (R^2) value of 0.65 indicates that 65% of the variation in the company's financial performance can be explained by the three financial ratios, while the remaining 35% is influenced by other factors outside the model.

These findings are consistent with previous studies which state that profitability plays a dominant role in influencing financial performance. However, the inconsistency in the effect of the liquidity ratio indicates that other factors, such as operational efficiency and financial strategies, also play an important role. Therefore, companies need to balance debt and asset management aspects in order to maintain sustainable financial health.

This study shows that profitability, as measured by Return on Assets (ROA), has a significant positive effect on the company's financial performance, as measured by Return on Equity (ROE). This finding supports the theory that the higher the company's ability to manage its assets to generate profit, the greater the return provided to shareholders. This is consistent with previous research, which states that ROA is a key indicator in assessing management's effectiveness in maximizing owned assets. Therefore, company management needs to continuously improve operational efficiency so that profitability can be maintained or even improved.

On the other hand, the solvency variable (Debt to Equity Ratio/DER) shows a significant negative effect on ROE. This indicates that a financing structure that relies too heavily on debt can reduce the company's financial performance. High interest expenses and default risks can reduce net profit and ultimately decrease ROE. This finding aligns with previous studies that emphasize the importance of sound debt management in maintaining financial stability. Therefore, companies should maintain an optimal debt-to-equity ratio so as not to burden their cash flow excessively.

Conversely, the liquidity ratio (Current Ratio/CR) does not show a significant effect on ROE. This means that even though a company may have good ability in meeting short-term obligations, it does not directly increase shareholder returns. This phenomenon can be explained by the fact that companies with high liquidity are not necessarily efficient in managing available funds or may be too cautious in cash usage, thus hindering profit growth potential. This finding indicates that liquidity management should be aligned with investment and operational strategies in order to have a greater impact on profitability and company value.

These results have important implications for corporate decision-makers. Financial ratios should not be viewed in isolation, but must be analyzed holistically to obtain a comprehensive picture of a company's financial health. In addition, this study adds empirical evidence that profitability is a dominant factor in determining financial performance, while excessive debt and poorly managed liquidity may instead become obstacles. In this context, strategic financial management becomes crucial for creating optimal and sustainable performance.

CONCLUSION

Based on the results of the analysis, it can be concluded that simultaneously, the liquidity, solvency, and profitability ratios have a significant effect on the company's financial

performance as measured by Return on Equity (ROE). Partially, the profitability ratio measured by Return on Assets (ROA) has a significant positive effect on financial performance, indicating that the higher the company's ability to generate profits from its assets, the higher the return to shareholders. In contrast, the solvency ratio (Debt to Equity Ratio/DER) shows a significant negative effect on ROE, indicating that the higher the company's debt burden, the more likely its financial performance is to decline. Meanwhile, the liquidity ratio (Current Ratio/CR) does not have a significant effect on ROE, indicating that the company's ability to meet short-term obligations does not necessarily reflect an improvement in financial performance. Therefore, company management needs to focus more on efficient asset utilization and capital structure management to sustainably improve financial performance.

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